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ABSTRACT

This monograph is intended to draw attention to the necessity for establishing research priorities which focus upon the problems specifically addressing the education of handicapped secondary school youth. Five studies addressing issues in this area are presented: (1) "An Analysis of Curriculum and Grading Formats Used by Regular Secondary Teachers" (Cynthia L. Warger); (2) "An Investigation of Secondary Preservice and Practicing Teachers' Perceptions Relating to Public Law 94-142" (Patricia A. Connard and Calvin Dill); (3) "Beyond the Mandate: A Study of Secondary Schools in Four Ohio Counties" (Frederick Chambers); (4) "A Study of the Discrepancies between Perceived Needs and Training of Teachers of Students with Behavioral Handicaps" (Ellen U. Williams, Steven C. Russell, Isabel Hansen, and Barbara Jackson); and (4) "Effects of a Curriculum Development Project upon Regular Secondary Faculty" (Patricia L. Reed and Robert L. Reed). (JD)

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MAINSTREAMING IN SECONDARY SCHOOLS

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MAINSTREAMING IN SECONDARY SCHOOLS: FOCUS ON RESEARCH

Editor

Patricia L. Reed

This issue of the OATE-OACTE Monograph Series was developed and produced under the auspices of the Secondary Mainstreaming Project, College of Education, Bowling Green State University, Bowling Green, Ohio 43403. This dissemination activity was performed pursuant to, and in part supported by, Grant No. G008000540 from the Division of Personnel Preparation, Special Education Programs, Office of Special Education & Rehabilitative Services, U.S. Department of Education. However, the points of view expressed herein are the authors' and do not necessarily reflect the position or policy of the U.S. Department of Education and no official endorsement by the U.S. Department of Education should be inferred.

Bowling Green, Ohio
1983

MAINSTREAMING IN SECONDARY SCHOOLS: A RESEARCH PRIORITY

Editor's Comments

The Education for All Handicapped Children Act requires establishment of procedures which assure that, to the maximum extent appropriate, handicapped children are educated with children who are not handicapped. Regulations accompanying the Act specify that placement of handicapped children should entail the least restrictive environment with respect not only to academic services, but nonacademic and extracurricular services and activities as well. The individualized education program, which is the basis for making placement decisions, must indicate the extent to which a handicapped student's needs can be met in the regular education program.

Thus, although the term is not mentioned in either the Act or the regulations, Public Law 94-142 has brought widespread attention to practices commonly referred to as mainstreaming.

Attempts to implement effective mainstreaming practices have been accompanied by many complex problems. At the secondary level particularly, the development of programs which provide for integration of handicapped and non-handicapped students has been especially difficult. Traditional concepts of roles and responsibilities, organizational patterns, instructional modes, and even the purposes of secondary schools seem to pose almost insurmountable obstacles to mainstreaming being an educationally sound process at this level.

Unfortunately there is as yet no substantial body of research relating directly to the education of handicapped secondary-level students which professional educators can draw upon as they grapple with the problems of implementing mainstreaming programs in the secondary schools. Rather, most researchers who have been concerned with the education of handicapped students in regular settings have based their findings on samples more representative of elementary-level rather than secondary-level pupils, teachers, programs, and schools.

That Public Law 94-142 has resulted in the writing of approximately four million IEPs annually has been documented (Wright, 1980). But to what extent is the mainstreaming of secondary-age students called for in such plans? When included, how effective is mainstreaming in promoting the academic and social learning of handicapped secondary youth?

That the disabilities most often represented by children who are mainstreamed are mild to moderate retarded, learning disabilities, and behavior problems is generally recognized (Reynolds, 1981, p. iii). But are mainstreamed secondary students equally representative of these categories of disability?

That there is a movement toward fewer and more generic classifications of handicapped students has been concluded (Barresi and Bunte, 1979; Gilmore and Argyrus , 1977). Is this movement generally reflected in the preparation of secondary school personnel? What are the effects of more generic categorization on the design and implementation of programs for handicapped at the secondary level?

That handicapped children generally profit in regular classes in terms of academic achievement but demonstrate poor social adjustment has been observed in numerous reviews of mainstreaming efficacy studies (Corman and Gottlieb, 1979; Guskin and Spicker, 1979; Macmillan, 1971). However, more recent studies suggest that there is no justification for special class placement of low IQ (EMR) children in special classes

but some justification for special class placement of LD and BD/ED children (Carlberg and Kavale, 1980). Are these conclusions warranted with respect to secondary-age youth?

That personnel preparation programs should give attention to the needs and capabilities of all teachers in terms of their working more effectively with handicapped students is a position supported by teacher education groups and organizations (NCATE, 1982; Reynolds, 1979). Furthermore, the U.S. Department of Education has supported training projects for the purpose of promoting the "development of (regular) faculty knowledge, attitude, and skills pertinent to the educaton of handicapped children" and " the infusion of special education content into traditional undergraduate or graduate curricular" (U.S.D.E., 1981). State priorities also continue to emphasize the need for inservice preparation of teachers to implement effective mainstreaming practices (Ohio Department of Education, 1981). What knowledge, skills, and attitudes, when demonstrated by regular secondary personnel, are conducive to furthering the academic and social progress of handicapped secondary students? Are the strategies applied in personnel training programs productive or counterproductive to achieving the goal of an appropriate education in the least restrictive environment for secondary-level students?

The preceding examples of considerations and questions relating to the mainstreaming of secondary students are cited to illustrate the need for more extensive investigation of the relationships among variables associated with educating handicapped secondary youth. In recognition of that need, this issue of the OATE/OACTE Monograph Series presents five studies which address certain of these concerns. Findings and implications may be of particular interest to teacher educators who are concerned with the preparation of secondary teachers.

But more importantly, this monograph is intended to draw attention to the necessity for establishing research priorities which focus upon problems specifically addressing the education of handicapped secondary youth. Admittedly, educational research cannot resolve the many philosophical and pragmatic issues associated with the concept and practice of mainstreaming. However, a substantial body of research findings can assist educators in arriving at warranted assumptions as to the probable consequences of alternative decisions and actions regarding mainstreaming at the secondary level.

Toward that end, this monograph is directed.

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Monograph Series Number 6
Spring 1983

MAINSTREAMING IN SECONDARY SCHOOLS: A RESEARCH FOCUS

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An Analysis of Curriculum and Grading Formats Used by Regular Secondary Teachers

Cynthia L. Warger

A survey of secondary teachers was conducted to determine whether secondary teachers modify their curriculum and grading formats for handicapped mainstreamed students. Results suggest that few if any curriculum modifications are made but grading modifications are typically made. Furthermore, secondary teachers seem to prefer following traditional curriculum formats in working with mainstreamed students but do not prefer using traditional grading practices.

Implementation of Public Law 94-142, the Education for All Handicapped Children Act, has presented many questions for regular secondary teachers concerning the direction and evaluation of the educational progress of handicapped students. Still to be resolved at the secondary level is the issue of how handicapped students who are provided full- or part-time instruction in regular classrooms are to be graded (Gearhart, 1980; Kinnison, Hayes and Accord, 1981; Warnock, 1976).

Underlying the grading issue is a fundamental conflict between how students are typically evaluated in a regular program and how students are evaluated in special education programs. While regular education programs generally utilize common standards by which all students are measured, special education programs tend to vary standards according to each student's individual needs (Lucas, 1982). When working with handicapped students, regular classroom teachers have been called upon to individualize classroom evaluation techniques for their mainstreamed students (de Grandpre and Messler, 1979); use the mainstreamed student's previous level of success rather than that of other students as a point of reference (Lilly, 1975; Warnock, 1976); or use the individualized educational plan (IEP) for all evaluation purposes (Larsen and Poplin, 1980; Turnbull and Schulz, 1979).

Numerous writers have also expressed theoretical concerns about the grading of maistreamed students. Wasa (1981) has argued that traditional grading should be discarded, not only because it does not reflect the intent of mainstreaming, but also because it tends to harm rather than help mildly handicapped students. In contrast, Guetzloe and Cline (1981) have asserted that if a handicapped student is appropriately placed in the regular program, then he/she should be graded in comparison to regular classroom peers. The lack of agreement on standards makes it difficult for regular teachers to develop an appropriate and fair grading policy for the student who may not be completing the same work as his/her peers, or who may be receiving assistance unavailable to non-handicapped students in order to complete assigned work (Stoneking, Grotelueschen, and Lahti, 1976).

OVERVIEW OF THE STUDY

The intent of this study was to investigate how regular secondary teachers actually assign grades to handicapped students whose educational programs entail full- or part-time placement in regular classrooms. Because any grading process is embedded within a particular curricular format, teachers' regular grading procedures were examined within the context of the curriculum format used for handicapped students placed in the regular classroom. In addition, the relationship between the specific type of handicap (e.g. Emotional Impairment, Learning Disability, Educable Mental Impairment) and the degree of variation from the regular classroom procedure was analyzed.

Specifically the study was concerned with the following questions:

1. What types of mainstreamed students are secondary teachers currently teaching?

2. What curricular and grading formats are being used in classes in which handicapped students are mainstreamed?

3. Who has responsibility for grading mainstreamed students?

4. Do secondary teachers modify the regular curriculum format for mainstreamed students? Do teachers prefer using a different format than that which they are currently using?

5. Do teachers modify the grading structure for mainstreamed students? Do teachers prefer to use a different format than that which they are currently using?

6. What criteria, other than academic performance, do secondary teachers apply when grading mainstreamed and regular students?

METHOD

Thirty-nine secondary teachers (22 female, 17 male) enrolled in graduate courses at several universities volunteered to participate in this study. Subjects taught by these teachers were English (23%), Social Studies (25%), Math (12%), and Science (10%).

The majority (64%) had little or no training for mainstreaming, although 59% had taken one or more special education courses. Only seven percent had not previously taught mainstreamed students. The types of handicapped students these teachers had or were presently teaching included: learning disabled (89.7%), emotionally impaired (74.4%), educable mentally impaired (30.8%), physically impaired (56.4%), hearing impaired (42.1%) and visually impaired (28.9%).

A questionnaire which was first pretested on 20 teachers was used for data collection purposes. The first section of the questionnaire elicited general information about the teachers' background, experience, and training with mainstreamed students. A second section ascertained information, including curriculum style and grading, about the courses taught. A final section obtained information specifically relating to the mainstreamed students taught.

RESULTS

What types of mainstreamed students are teachers currently teaching?

Results indicated that four respondents were not currently teaching mainstreamed students. The remaining 35 respondents were currently teaching a total of 170 mainstreamed students, representing all disability areas indicated above. Sixty percent of the teachers were teaching at least one learning disabled student and 17% were teaching one or more students with emotional impairments. The percentage per handicap level for the 170 students was as follows: learning disabled (59%); emotionally impaired (24%); educable mentally impaired (9%); hearing impaired (4%); physically impaired (3%); and visually impaired (2%).

What curricular and grading format is being used in classes in which handicapped students have been mainstreamed?

Forty percent of the teachers reported they used the traditional lecture-discussion format in conducting their classes. The distribution of mainstreamed students was such that the same proportion (40%) were in classrooms in which teachers used this format. The two other most common curricular formats being used were instruction-seat work (23%) and lab-seat work (16%). Only 30% of the teachers taught courses which were required for graduation. Fewer than 12% were assisted by aids, in most cases student teachers.

Approximately 50% of the teachers reported using a traditional grading format defined as a point system based on a scale in which 90-100% equals an "A", 80-90% equals a "B", etc. The majority of mainstreamed students (54%) were placed in such classrooms. A curve-type grading format was used by 12% of the teachers, while 6% used individualization.

Who has responsibility for grading mainstreamed students?

A large majority of the students (93%) had teachers who reported having full responsibility for grading these mainstreamed students. Only one mainsteamed student was graded solely by the special education teacher. For ten students, grading was done jointly by the regular and special education teachers.

Do teachers modify the regular curriculum format for mainstreamed students? Do teachers prefer to use a different format that the one they are currently using?

As shown in Table 1, nearly half (48%) of the 170 handicapped students were mainstreamed into classrooms in which only minor modifications in the regular curriculum were made. Another 32% were in classrooms in which no curricular modifications were made. The remainder were in classrooms in which either most of handicapped students' work was individualized or the special education teacher provided the work to be done by the student.

TABLE 1

Curriculum Format by Type of Handicap Characteristic

Curriculum Format (n = 170)	Total	Type of Handicap Characteristic					
		EMI[1] (n = 16)	LD[2] (n = 100)	EI[3] (n = 40)	POHI[4] (n = 5)	VI[5] (n = 3)	HI[6] (n = 6)
Regular	55	1	31	16	4	0	3
Row%	100.0	1.8	56.4	29.1	7.3	0	5.5
Col%	32.3	6.2	31.0	40.0	80.0	0	50.0
Regular with minor Modification	81	2	57	16	1	2	3
Row%	100.0	2.5	70.4	19.8	1.2	2.5	3.7
Col%	47.6	12.5	57.0	40.0	20.0	66.7	50.0
Half Regular Half Individ.	12	2	7	2	0	1	0
Row%	100.0	16.7	58.3	16.7	0	8.3	0
Col%	7.1	12.5	7.0	5.0	0	33.3	0
Special Ed. Sends Work	11	0	5	6	0	0	0
Row%	100.0	0	45.5	54.5	0	0	0
Col%	6.5	0	5.0	15.0	0	0	0
Individualized	11	11	0	0	0	0	0
Row%	100.0	100.0	0	0	0	0	0
Col%	6.5	68.8	0	0	0	0	0

[1]Educable Mentally Impaired
[2]Learning Disabled
[3]Emotionally Impaired
[4]Physically or Health Impaired
[5]Visually Impaired
[6]Hearing Impaired

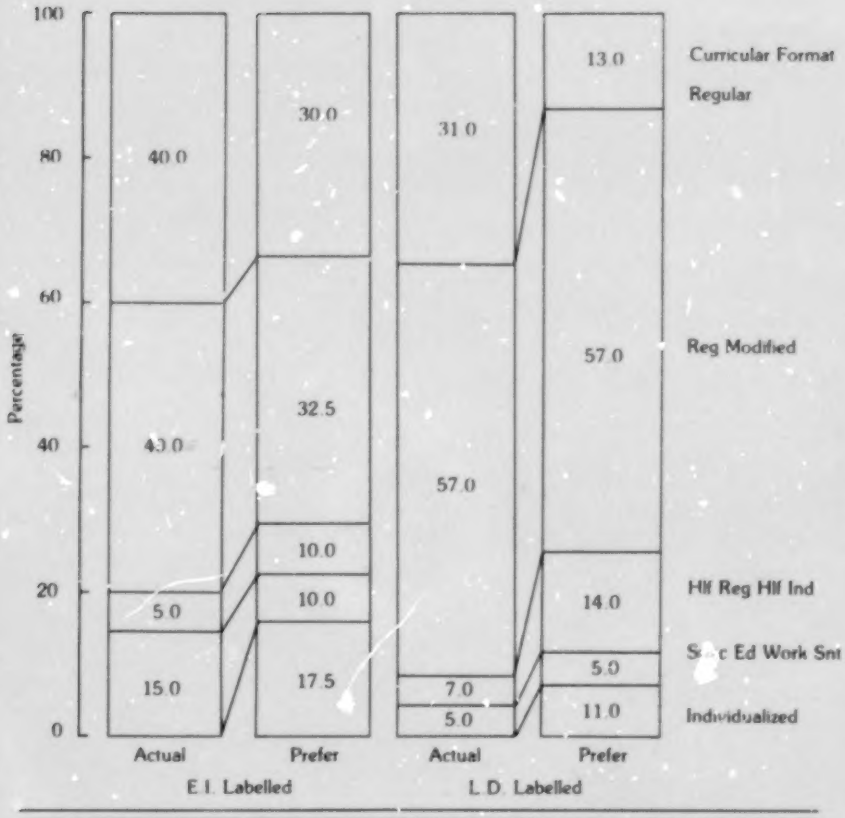
NOTE: Definitions of impairments are those used by the Michigan Department of Education.

Overall, there were few variations between the actual and preferred curriculum formats for mainstreamed students. Educable mentally impaired and hearing impaired students were mainstreamed into classrooms in which there were no differences between teachers' actual and preferred curriculum formats. While the actual curriculum format used for physically impaired and visually impaired students did involve some modifications, teachers preferred that students complete the regular curriculum without modification.

The largest disparity between actual and preferred curricular formats occurred for learning disabled and emotionally impaired students. (See Figure 1.) In general, the majority of students were in classrooms in which the actual curriculum format used by the teachers was also the preferred format.

FIGURE 1

Actual vs. Preferred Curricular Formats



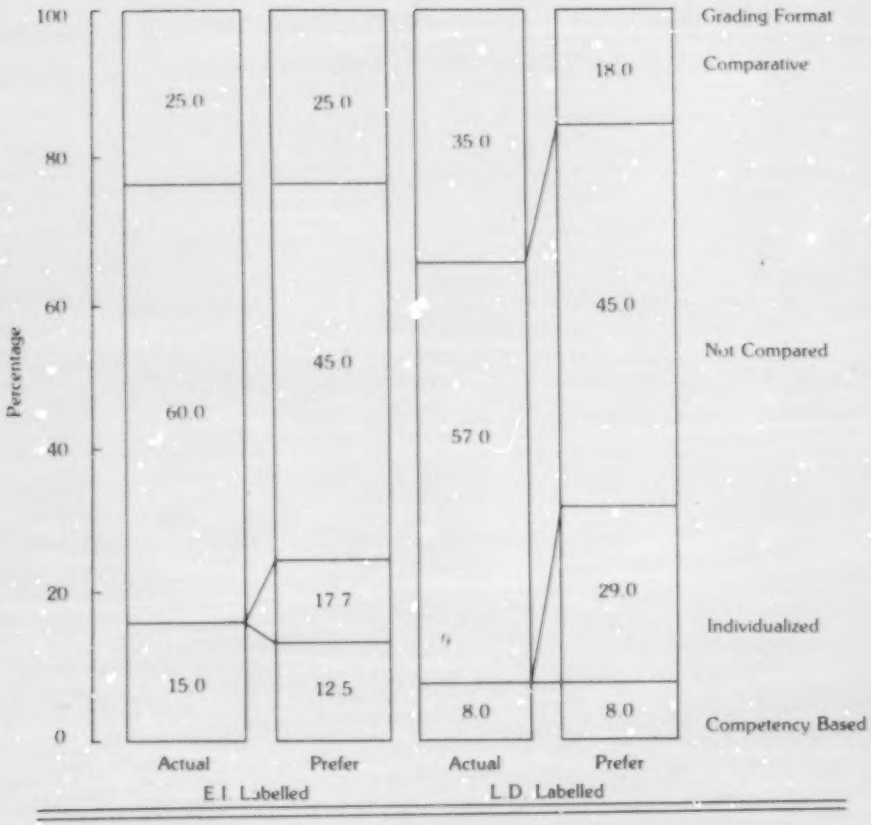
Do teachers modify the grading structure for mainstreamed students? Do teachers prefer to use a different grading format than that which they are currently using?

The response category "student completes the same work as others but is graded individually (work is not compared)" was reported as the primary grading format used for 59% of the mainstreamed students. With the exception of physically impaired and visually impaired students, this was the major grading format used for all categories of handicapped students. The performance of these two groups of students tended to be evaluated in relation to other students in the classroom. Also, for physically-, mentally-, visually-, and hearing-impaired students there was virtually no difference between the teachers' actual and preferred grading formats. However, some disparity was found within the emotionally impaired and learning disabled groups. Differences

between actual and preferred grading formats for these two groups are shown in Figure 2. Numbers presented indicate the percentage of emotionally impaired and learning disabled students in classrooms in which teachers utilized a comparative, a non-comparative, an individualized, or a competency-based grading format. Also presented are the teachers' preferred formats for each group.

FIGURE 2

Actual vs. Preferred Grading Formats



What criteria other than academic performance do secondary teachers apply when grading mainstreamed and regular secondary students?

Teachers were asked to indicate on a four-point scale ranging from "none" to "a lot", the amount of emphasis they attributed to a variety of non-academic student characteristics when assigning grades to both mainstreamed and regular students. For three of the twelve items, statistically significant differences between mainstreamed and regular students were observed. Utilizing a t-test, teachers (N = 39) were found (p .01)

to consider both "effort" and "improved performance over the semester" more in grading handicapped than non-handicapped students. Similarly, it was revealed that when a particular course was required for graduation, this factor was given greater consideration ($p < .05$) in determining grades for handicapped students than for regular students.

DISCUSSION AND IMPLICATIONS

Because the sample utlized in this study may not be representative of secondary teachers generally or of the total array of subjects into which students are mainstreamed at the secondary level, care must be exercised in arriving at conclusions. However, results of the study lend support to the hypothesis that few modifications are made in the traditional (lecture-discussion) curriculum format of regular secondary classrooms for handicapped students. However, in terms of grading formats, it appears that modifications are typically made; the traditional (percentage-letter grade) system is not utilized similarly for handicappd and regular students. Furthermore, secondary teachers seem to prefer the traditional curriculum format but do not prefer the traditional grading format for utilization with handicapped students.

As Vasa (1981) noted, there is little merit in continuing to verify that handicapped and non-handicapped students do not have equal performance on traditional tests or in traditional classroom environments. However, there is also little merit in assigning handicapped students to classrooms in which the curriculum or grading practices are inappropriate for meeting handicapped students' educational needs. This study provides evidence indicating that further attention needs to be directed toward determining why teachers use non-traditional grading formats when assessing performance of handicapped students but utilize and prefer traditional curriculum formats. Do teachers modify grading practices to compensate for not being able to modify the conditions (instructional contexts) which mediate performance? Do they adjust criteria (expectations) for performance because of factors not directly associated with performance?

It has been proposed that organizational factors endemic to secondary schools (e.g. large numbers of students, emphasis upon content mastery) may be significant deterrents to the implementation of curriculum modifications which entail more individualized instruction (Sabatina, 1979; Stewart and Turnbull, 1980). This study suggests that fewer curriculum modifications occur for higher incidence categories of handicaps (i.e., emotionally impaired and learning disabled) than for other handicapping categories. Accommodating for such students may place too many instructional demands upon teachers who have little training or incentive to follow other than traditional approaches to content mastery. Such an explanation is consistent with the findings of Hoffman, West and Bates (1978) who reported that students with physical or sensory impairments tend to require only slight instructional modification in order to succeed in secondary classrooms, while those with academic or emotional impairments require significantly more.

It may also be relevant to draw attention to the fact that respondents in this study indicated that "effort put forth" and "improvement over the semester" were major considerations in modifying grade formats in relation to handicapped students. Use of such criteria may imply that, in terms of content mastery, secondary teachers view deficiencies of learning disabled or emotionally impaired students as a function of "not trying" or "being lazy." Teachers, attitudinally, may thus be able to justify adjusting grading procedures for students who, they believe, are putting forth effort.

Finally, since secondary schools require that grades be given to all students, grades remain a primary indicator of success in school. As the variation of student skills and abilities within the regular classroom increases, so do demands upon regular teachers to ensure that all students are successful. Assigning grades, as an indication of extent of a student's success, is one decision for which secondary teachers have direct responsibility. Altering grading formats, rather than curriculum formats, may be for secondary teachers the most viable means of demonstrating that students under their direction have not been prevented from succeeding.

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An Investigation of Secondary Preservice and Practicing Teachers' Perceptions Relating to Public Law 94-142

Patricia A. Connard and Calvin F. Dill

The intent of this study was to determine (1) the impact of preservice education relating to P.L. 94-142 upon students qualifying for secondary certification and (2) secondary teachers' perceived knowledge, attitudes and experience relating to P.L. 94-142. Findings indicated no significant differences between preservice and practicing teachers when considered as two intact groups. Significant differences did exist between five areas of secondary education: Special Education, Health Education, Fine Arts, Vocational Education, and Academic Education. Results suggest that secondary teachers may not be sufficiently knowledgeable or concerned with implementation of P.L. 94-142 to enhance practicum experiences for student teachers.

Meeting the needs of handicapped students in regular classrooms requires that educators be committed to accomplishing that goal. Support for integration of the handicapped involves more than the establishment of school policies which reflect the mandates of state and federal legislation. Integration efforts must be accompanied by systematic procedures to foster necessary knowledge, skills, and attitudes both at preservice and in-service levels. Teaches have both the right and the responsibility to be prepared for the task (Turnbull and Schulz, 1979).

The Education for All Handicapped Children Act of 1975 contains a provision that preservice and inservice training of personnel must be conducted to acquaint teachers with the mandates and implications of the law. Standards adopted by the State of Ohio and the National Council for Accreditation of Teacher Education also require that professional programs for all school personnel contribute to the education of exceptional learners. These legal and professional stipulations explicitly recognize that if school districts are to translate policies into effective procedures, teacher training programs must be directed toward the preparation of personnel who are qualified, competent, and committed to meeting these important professional obligations.

Since 1980, the College of Education at The Ohio State University has attempted to implement within all its professional education programs concepts and experiences relating to education of the handicapped. Through systematic development of content into existing coursework and application in associated field experiences, it was anticipated that preservice students would become concerned and knowledgeable regarding legal aspects of P.L. 94-142, rules and regulations, terminology, and procedures for educating handicapped individuals. Data collection was viewed as essential for providing information from which to evaluate the effects of this preservice programming.

The major purpose of this study, therefore, was to gather data which would assist in:

> determining the impact of preservice education relative to the implications and provisions of P.L. 94-142 on students qualifying for secondary certification;

determining secondary teachers' perceived knowledge, attitudes, and experiences relating to P.L. 94-142 in terms of their potential for enhancing the student teaching experiences of secondary education majors.

METHOD

The design of this study was descriptive in nature. A questionnaire was developed for the purpose of collecting data regarding preservice and cooperating secondary teachers' perceived levels of knowledge, experience, and attitudes toward provisions and implications of P.L. 94-142.

Instrumentation was designed by staff of the Dean's Grant Project after reviewing assessment instruments used by similar projects in other institutions. The questionnaire consisted of three parts. Part I included seven areas of the law and required the respondent to rate the level of knowledge on a five-point scale from "having no knowledge" to "having extensive knowledge." Part II included the same seven areas asking the respondent to rate level of experience. Part III was designed to measure attitudes toward the competencies that teachers in regular classrooms should or should not possess and the educational practices which should or should not exist.

The validity of the instrument's content was reviewed and analyzed by selected staff members from the Departments of Exceptional Children, Early and Middle Childhood, and Agricultural Education. The instrument was piloted with twenty-eight secondary student teachers and cooperating teachers from Agricultural Education. Information gathered from the pilot test was used to check clarity of instructions, appropriateness of questions and other factors which might affect response ratings. Reliability levels of .86, .76 and .93 for knowledge, experience and attitudes, respectively, were established.

The survey instrument was presented to undergraduates during the introductory seminar offered in conjunction with the student teaching practica. Students were given additional forms to secure responses from their cooperating teachers and return to University supervisors. The sample consisted of 100 preservice students and 54 cooperating teachers. Number of respondents by area is shown in Table 1

RESULTS

Perceived Knowledge. An average perceived level of knowledge for all respondents was computed by totaling the response ratings for each question and dividing the number of responses. When responses of student teachers and secondary teachers were combined, 61% perceived themselves as having adequate to substantial knowledge of P.L. 94-142 and its implication. Thirty-nine percent perceived themselves as having inadequate to no knowledge of the law and its implications. There was no difference in mean scores for knowledge between student teachers and secondary teachers; the mean for both groups was 15.35.

As Table 2 indicates, there was a significant difference in knowledge scores of respondents in the five groups ($p < .05$). Post hoc analysis using the Tukey method revealed a significant difference ($p < .05$) between the following areas: EMR ($X = 20.43$) and Academic Education ($X = 15.23$); EMR and Vocational Education ($X = 13.90$); EMR and Fine Arts ($X = 13.53$). There was no significant difference between EMR and Health ($X = 17.00$).

TABLE 1

Secondary Education Respondents

Areas	Preservice		Cooperating Teachers	
	n	%	n	%
Academic Education Humanities Math & Science	15	18	15	34
Vocational Education Industrial Arts Vocational Home Economics	37	40	24	43
Fine Arts Music Arts	33	28	5	9
Special Education Developmentally Handicapped	22	19	8	15
Related Service Health	3	3	2	2
Total	110	100	54	100

TABLE 2

Knowledge Scores of Public Law 94-142 by the Five Areas in Secondary Education Obtained by Student Teachers and Secondary Teachers

Secondary Education	n	mean
EMR	30	20.43
Health	5	17.00
Academic	30	15.23
Vocational	61	13.90
Fine Arts	38	13.53

Source	SS	DF	MS	F	p
Between Groups	1043.57	4	260.89	15.37	ns
Within Groups	2699.62	159	26.98		

Experience. Both groups, student teachers and secondary teachers, were asked to rate their experience concerning the provisions of P.L. 94-142. Over half (56%) of all respondents indicated they had adequate to extensive experience; the remaining respondents (44%) indicated having inadequate exposure to the provisions of the law. As separate groups, the mean score for student teachers ($X = 8.98$) and the mean score for secondary teachers ($X = 7.56$) yielded an F ratio of 3.51 which was not significant at the .05 level. Mean scores and results of the analysis of variance for combined experience scores of student teachers and secondary teachers in the five groups are shown in Table 3.

TABLE 3

Experiences Scores Related to Public Law 94-142 by the Five Areas in Secondary Education Obtained by Student Teachers and Secondary Teachers

Secondary Education	n	mean
EMR	30	11.80
Health	5	5.40
Academic	30	5.57
Vocational	61	8.62
Fine Arts	38	8.39

Source	SS	DF	MS	F	p
Between Groups	634.22	4	158.56	9.32	ns
Within Groups	2704.77	159	17.01		

A difference was found among mean scores of the five groups with respect to experiences related to Public Law 94-142 ($p < .05$). Post hoc analysis (Tukey method) indicated significant differences ($p < .05$) between the following groups: Fine Arts ($X = 8.39$) and Academic Eduation ($X = 5.57$); Vocational Education ($X = 8.62$) and Academic Education; EMR ($X = 11.80$) and Health (5.40); EMR and Academic Education; EMR and Fine Arts; EMR and Vocational Education.

Attitudes. Respondents were also asked to rate their attitudes toward P.L. 94-142 and its implications on a five-point Likert-type scale (Strongly Agree to Strongly Disagree). As a group, 88% of the respondents were in agreement with the provisions of P.L. 94-142; the remaining 12% indicated they were unsure. The data indicated no significant difference ($F = 1.95$; $p = .16$) between student teachers' and secondary teachers' attitudes. However, as Table 4 indicates, a significant difference ($F = 2.62$; $p < .04$) was found between the combined scores of student teachers and those of student teachers within the five areas. Post hoc analysis revealed a significant difference ($p < .05$) between EMR ($X = 49.53$) and Academic Education ($X = 46.60$). No significant differences appeared between remaining groups.

TABLE 4

Attitude Scores Toward Public Law 94-142 by the Five Areas in Secondary Education Obtained by Student Teachers and Secondary Teachers

Secondary Education	n	mean
EMR	30	49.53
Health	5	46.40
Academic	30	46.60
Vocational	61	46.09
Fine Arts	38	47.58

Source	SS	DF	MS	F	p
Between Groups	256.68	4	64.17	2.62	0.04
Within Groups	3888.54	159	24.46		

SUMMARY AND IMPLICATIONS

Sixty-one percent of all respondents considered themselves to have adequate to substantial knowledge of Public Law 94-142. Interestingly there was no significant difference in perceived level of knowledge between student teachers and secondary teachers. As might be expected, a significant difference was found between responses of student teachers in the EMR area and responses of student teachers in the four other areas.

Over one-half of all respondents indicated having adequate to extensive experience relative to the provision of P.L. 94-142. However, no significant differences were found between experience scores of preservice students and secondary teachers. Significant differences were found between responses of students in Academic Education and two other "regular" education areas. The small size of the sample in the third "regular" area (Health Education) may account for the fact that no significant difference with respect to this area was revealed. Again, as might be expected, respondents in the EMR program reported greater experience with the provisions of the law than did respondents in the four "regular" education areas.

Notably, eighty-eight percent of the total respondents were in agreement with the provisions of P.L. 94-142. Again no significant difference was found between preservice students' and secondary teachers' responses. However, unlike knowledge and experience measures, the only significant difference found in terms of attitude between respondents in "regular" education and respondents in EMR was when comparing EMR and Academic Education.

Clearly findings of this study cannot be viewed as assessments of the adequacy of knowledge, experiences, or attitudes as they relate to P.L. 94-142, nor are they ap-

propriate for ascertaining applied skills. However, they do provide an indication of the impact of current preservice program practices on students in regular secondary education areas. Also, they can be used as a source of data for determining whether secondary teachers' perceptions of their knowledge, attitudes, and experiences relative to P.L. 94-142 have potential for enhancing the student teaching experience as it relates to these concerns.

Results of this study strongly suggest that preservice secondary education students are entering the profession with perceptions and experiences very similar to those of their cooperating teachers in the schools. While this may speak well for the preservice component, it may also imply that secondary teachers are not sufficiently knowledgeable and experienced with the provisions of P.L. 94-142 to facilitate continuing growth on the part of student teachers.

Admittedly, the cooperating teachers who comprised the sample for this study may not be representative of secondary teachers in general. Nonetheless, in terms of those teachers working with secondary student teachers at OSU, attention may need to be given to developing inservice assistance for teachers that will focus upon the education of handicapped students at the secondary level. Regular secondary teachers who serve possibly two or three handicapped students in the context of a classroom of "regular" students may not have had the opportunity to participate actively in the kinds of professional development activities which are needed to enable then to achieve successful integration as outlined in the law. Problems they face and needs they have may require new approaches to inservice specific to their setting.

Preservice education programs can be only minimally successful in addressing the principles and concepts fundamental to meeting the needs of handicapped children in regular classrooms if these concepts and practices are not exemplified in practicum experiences. The contribution of the cooperating teacher is crucial in achieving this goal.

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Beyond the Mandate: A Study of Secondary Schools in Four Ohio Counties

Fredrick Chambers

Following passage of P.L. 94-142, professional educators were urged to adopt new perspectives toward programs for educating handicapped students. This study examines characteristics of fifty-three secondary schools in four Ohio counties in terms of their implementation of these new perspectives. Results suggest that, even though seventy-five percent of the secondary schools are mainstreaming handicapped students, the general character of school programs for the handicapped entails only limited application of professional imperatives.

In a position paper issued by the American Association of Colleges for Teacher Education in 1978, professional educators were urged to adopt new perspectives regarding the education of the handicapped. Rather than continue to emphasize competition and narrow, single dimensional ways of viewing individuals, they were encouraged to be responsive to individual differences. Stressed also was the need to revitalize inservice education programs and redirect policies for unilateral decision-making regarding placement and programs for the handicapped to parent-professional decisionmaking which exemplifies shared responsibility for the learners' total needs (AACTE, 1978).

Nearly a decade has passed since adoption of Public Law 94-142. Have professional educators made significant progress toward improving the quality of education for handicapped students by translating these new perspectives into practice? More specifically, to what extent have schools adopted policies and practices which are representative of these new perspectives? Do schools have professional staffs who accept responsibility for educating all students enrolled? Do schools utilize cooperative decisionmaking in defining programs for handicapped students?

These questions are fundamental to determination of the impact of the law -- and of the related professional imperatives -- with respect to achieving the goals of equal opportunity unlimited access, and responsiveness to individual differences for handicapped persons.

In recognition of a need to broaden the data base regarding current practices relating to provision of appropriate educational programs for handicapped students in Ohio, and particularly in recognition of the scarcity of such information relating to secondary schools, this investigation was initiated.

The study is intended to be an initial step toward assessing the perspectives utilized by Ohio secondary schools in implementing educational programs for handicapped students. Specifically, the objectives of the investigation were to determine: (1) the extent to which mainstreaming is occurring in selected secondary schools in Ohio, (2) the receptivity and capability of staffs of these schools toward integrating such students within school programs and activities, and (3) the extent to which policies and procedures of these schools reflect a shared responsibility for meeting the needs of handicapped students.

METHOD

Schools considered as secondary for purposes of this study include the four categories of schools designated as "High School," " Junior High School," "Middle School," and "Joint Vocational School," in the *Ohio Education Directory*. The sample was limited to secondary schools in four northeast Ohio counties: Portage, Stark, Summit, and Trumball. A total of 53 schools comprise the sample. Twenty-three (43%) were high schools, fourteen (26%) junior high schools, twelve (23%) middle schools, and four (8%) joint vocational schools. Location of schools by county was as follows: Portage (8; 15%), Stark (10; 19%), Summit (23; 43%), Trumbull (11; 21%), and unknown (1; 2%). All were public schools. (See Table 1)

Data describing characteristics of these schools were collected by means of a written questionnaire which was completed and returned by principals of the 53 schools.

RESULTS

The total number of handicapped students reported as being enrolled in the fifty-three schools was 2,806. These students represented approximately 7.4% of the total enrollment reported for the 53 schools. The number of handicapped students reported for any one school ranged from none (total school enrollment of 167) to 278 (total school enrollment of 1,670). Type of handicapped students reported for all schools is shown in Table 2. As would be expected, the largest number of students were reported to be learning disabled (1,233; 41%) and EMR (964; 32%).

Of the 53 respondents, forty (75%) indicated that their handicapped students were mainstreamed. However, fifty-one (96%) indicated that qualifying conditions exist with respect to the extent of handicapped students' participation in school programs and activities. Two (4%) of the respondents reported that handicapped students are totally excluded from their school's programs and activities.

Fifteen of the administrators (28%) reported that more than 50% of their teachers had some professional preparation in mainstreaming. However, twenty-seven (51%) of the respondents considered their faculty unable to meet the needs of all handicapped students in their buildings. Twenty-one (40%) evaluated their staffs as being able to meet the needs of all handicapped students enrolled.

Thirty-nine (74%) of the principals indicated the availability of specialized staff, either in the school or the district, to provide information to teachers regarding student disabilities. Resources reported as most used by teachers to obtain information concerning handicapped students were: (1) special education teachers, (2) counselors, and (3) school records. When asked to identify areas in which "professional capability is critically needed, the principals named only three: behavioral disorders (7; 13%); hearing impaired (6; 11%); and visually impaired (6; 11%).

In evaluting attitudes of their school staffs toward mainstreaming, only four (7%) of the administrators reported not experiencing staff opposition to mainstreaming. Sixteen (30%) viewed their staffs as opposed to mainstreaming handicapped students into their areas of reponsibility; however, that same number noted this might be due to staff being "unqualified" to work with handicapped students. Only ten (19%) reported their staff members as having no opposition to mainstreaming.

When asked who initiated mainstreaming policies in their schools or school districts, the reponses in order of highest frequency were: (1) Superintendent and Staff, (2) Faculty, (3) School Board, and (4) State Department of Education (See Table 3.)

TABLE 1

Number, Location, Type of School, Total Enrollment, and Handicapped Enrollment in Portage, Stark, Summit, and Trumbull Counties, Ohio Secondary Schools
N = 53

# of Schools	LOCATION					TYPE OF SCHOOL						REPORTED ENROLLMENT	
	Unknown	Portage	Stark	Summit	Trumbull	Pub.	Non-pub.	HS	JR	M	JVS	Total	Handicapped
1					x	x		x				439	30
2			x			x		x				1689	61
3					x	x		x				530	34
4					x	x		x				352	18
5	x											635	70
6				x		x				x		514	36
7				x		x		x				1250	30
8					x	x				x		470	64
9				x		x		x				1000	1
10					x	x			x	x		400	58
11				x		x		x				850	23
12				x		x				x		857	55
13				x		x			x			630	32
14				x		x		x				522	0
15				x		x			x			708	28
16					x	x		x				1137	54
17		x				x		x				1300	125
18		x				x				x		924	77
19			x			x			x			420	60
20		x				x				x			127
21			x			x				x		567	35
22			x			x		x				799	80

TABLE 1

Number, Location, Type of School, Total Enrollment, and Handicapped Enrollment in Portage, Stark, Summit, and Trumbull Counties, Ohio Secondary Schools

# of Schools	LOCATION					TYPE OF SCHOOL						ENROLLMENT	
	Unknown	Portage	Stark	Summit	Trumbull	Pub.	Non-pub.	HS	JR	M	JVS	Total	Handicapped
23			x			x		x					45
24				x		x		x				695	39
25				x		x				x		625	42
26		x				x		x				1670	278
27					x	x					x	890	70
28			x			x					x	600	55
29				x		x					x	469	24
30		x				x					x	880	51
31			x			x		x				809	53
32				x		x			x			550	35
33		x				x		x					
34		x				x				x		338	17
35		x				x		x				533	23
36				x		x				x		330	22
37				x		x			x			506	80
38				x		x			x			167	0
39				x		x		x				1026	63
40					x	x				x		251	7
41					x	x		x				1700	50
42					x	x			x			400	42
43					x	x			x			528	46
44			x			x			x			671	33
45			x			x			x				91
46			x			x			x			850	120
47				x		x		x				914	61
48				x		x		x				1405	72

TABLE 1

Number, Location, Type of School, Total Enrollment, and Handicapped Enrollment in Portage, Stark, Summit, and Trumbull Counties, Ohio Secondary Schools

# of Schools	LOCATION					TYPE OF SCHOOL						ENROLLMENT	
	Unknown	Portage	Stark	Summit	Trumbull	Pub	Non-pub	HS	JR	M	JVS	Total	Handicapped
49				x		x		x				1346	96
50				x		x			x			1065	45
51				x		x				x		672	42
52				x		x			x			1040	88
53				x		x		x				975	18
Totals	1	8	10	23	12	53	0	23	14	12	4	37898	2806

TABLE 2

Type of Handicapped Students Enrolled in 53 Public Secondary Schools in Portage, Stark, Summit, and Trumbull Counties, Ohio

TYPE	NUMBER Actual	or Estimate
Mobility Impaired	18	8
Speech Impaired	111	106
Learning Disabled	873	360
Epilepsy	40	40
Visually Impaired	25	4
Hearing Impaired	63	2
Emotional Disability	45	49
EMR	821	143
Behavior Disorder	167	17
Socially Maladjusted	14	3
Medical Disability	15	22
Other (write in)		
Speech and Language Therapy	10	
Autistic	5	
SBD	8	
L/D Tutorial	17	
Total	2232	754

TABLE 3

Policies on Mainstreaming in Your School and/or School District were Initiated By:
N = 53

	Number of Schools
State Department of Education (Ohio)	21
School Board	22
Superintendent and Staff	41
Parents	8
Funding (all sources)	8
Faculty of Your Building or District	24
Court Decision	3
State Law	14
Other (write-in)	
Principals of High School and Middle School	1
Coordinator of Special Education	1
Our Own Desire to Serve	1
County Board of Supervisors	1

Persons indicated as having greatest responsibility for mainstreaming were: (1) special education teachers, (2) counselors, and (3) committees of professionals and parents. (See Table 4.) Similarly these same persons were also perceived as having greatest responsibility for evaluating the progress of handicapped students. (See Table 5.)

TABLE 4

The Program of Mainstreaming Handicapped Students in Our School is the Responsibility of the Following:
N = 53

	Number of Schools
Not our responsibility	0
Committee--Professionals and Parents	33
Counselor	40
Outside Agencies	8
Superintendent	8
USOE	1
Ohio State Department of Education	2
Committee of Faculty	12
Special Education Teachers	43
Principal	29
Psychologist	3
AC Coordinators	1

TABLE 5

Indicate Responsibility for Evaluation of Progress of Handicapped Students in Your School
N = 53

	Number of Schools
Principal	8
Committee - Professionals & Parents	26
Counselor	33
Outside Agencies	1
Superintendent	1
Ohio State Department of Education	9
USOE	2
Special Education Teachers	38
Committee - Faculty	13
Psychologist	2
A.C. Coordinator	1

Forty-eight (91%) of the respondents indicated that their school districts had publications of policies/procedures directed toward parents, teachers, and community members regarding education of handicapped students. (See Table 6.)

TABLE 6

Are There Publication, Policies, and Procedures, From Your School or District to Parents, Teachers, and Community Members Assuring Educational Opportunities for Students With Disabilities?
N = 53

Response	Number of Schools
Yes	48
No	3
Do not know	2

DISCUSSION AND IMPLICATIONS

Results of this study must be viewed cautiously in that they represent principals' perceptions of characteristics of educational programs for the handicapped rather than direct observations of these programs. Also, the schools which comprised the sample may not be representative of the some 230 public and private schools in these four Ohio counties nor of secondary schools in general.

While most of the secondary schools appear to be mainstreaming handicapped students, such students still remained restricted from participation in many aspects of the schools' programs and activities. Furthermore, despite the fact there is evidence to suggest that special classroom placement is less justified for EMR and LD students, these classifications represented the largest numbers of students reported as handicapped.

Although a majority of teachers were reported to have had training in working with handicapped students, almost one-third of the administrators viewed their staffs as opposed to mainstreaming when it directly involved their working with handicapped students.

Interestingly, critical needs relative to staff development were not identified for the populations reported as comprising almost two-thirds of the handicapped enrollments (i.e., EMR and LD) but were seen for lower incidence populations (i.e., behavior disorders, hearing impaired and visually impaired).

Findings of this study provide some evidence of shared decisionmaking in that special education teachers, counselors, and committees of professionals and parents were all seen as having responsibility for mainstreaming as well as evaluating handicapped students. However, the presence of "professionals" on these committees does not necessarily indicate involvement by regular teachers. It did appear that faculties within the schools and school districts had a role in initiating mainstreaming

policies and also that efforts were being made to increase communication among professionals, parents, and other community members regarding school policies and procedures relating to programming for the handicapped.

Clearly, more intensive and exacting study of both the purposes and extent of mainstreaming for particular students is needed. Also, since social adjustment of students who are mainstreamed may be problematic, further examination of secondary schools' apparent preclusion of handicapped students' participation in clubs and other activities seems to be called for.

Overall, this study has provided little evidence that mainstreaming practices, as implemented in the secondary schools, exemplify adoption of the new perspectives outlined as being vital to the intent of P.L. 94-142.

REFERENCES

American Association of Colleges for Teacher Education. *Beyond the Mandate: The Professional Imperative*. Washington, D.C.: AACTE, 1978.

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A Study of Discrepancies Between Perceived Needs and Training of Teachers of Students with Behavioral Handicaps

Ellen U. Williams, Steven C. Russell, Isabel Hansen, and Barbara Jackson

The purpose of this study was to determine the discrepancy between perceived needs and training of teachers of students with severe behavioral handicaps. Competencies perceived as important but not adequately addressed in pre-service training were the abilities to enhance students' self-concept, facilitate students' social skills, communicate with parents, and facilitate the mainstreaming process. Respondents also indicated that the SBH teacher-training program should be a separate pre-service program rather than a joint program with learning disabilities.

A major dilemma confronting the classroom teacher is that of teaching students who are disturbed or disturbing. Because of insufficient numbers of special teachers and classrooms, and because of requirements of P.L. 94-142, the majority of such students are placed in regular classrooms. Those who are placed in special settings are no less a challenge for the special teacher who needs both a philosophical and practical approach for helping them (Carducci, 1980, p. 156).

Teacher educators have been studying the problem of providing more adequate pre-service preparation for teachers of the severely behaviorally handicapped (SBH) for some time. This issue is of particular concern in the State of Ohio in view of the fact that current Ohio certification practices extend one certification for both learning disabilities (LD) and behavior disorders (BD) with no option for single certification, nor specialization in "severe" behavior disorders.

RELATED RESEARCH

As noted by Brown and Palmer (1977), increased mainstreaming of students with behavior disorders should prompt more inservice training of regular educators in order to improve their skills in working with this population. However, programs for training regular educators to teach SBH students in the mainstream cannot be properly developed until there is better understanding of competencies special teachers need to work effectively with such students.

Training programs for SBH teachers have been described and evaluated in numerous studies. Characteristics of 58 BD teacher-training programs were examined in a survey conducted by Fink, Glass, and Guskin (1975). Results of this survey indicated that most programs sampled emphasized behavioral and academic measurement, prescriptive teaching practices, and methods of intervention. De-emphasized in these programs were psychodynamic diagnostic and treatment approaches. Harth (1971) surveyed 64 directors of university programs for teachers of the emotionally disturbed/behavior disordered. Of those surveyed, results indicated that 55 percent supported training at the undergraduate level. However, 25 percent of those responding were found not to favor ED/BD teacher-training at this level.

Morse, Brun, and Morgan analyzed teacher-training programs for educators of the behaviorally disordered and concluded that, "The present review of practice does not suggest that the training in this field is coming together in any mass coalescence. Anything but. Programs are to a considerable extent built around people and diversity is the name of the intellectual game" (1972, p. 242). Kavale and Hirshoren (1979) further pointed out the incompatability between the public school practice of educating behaviorally disordered students and the university teacher-training programs for preparation of teachers of the behaviorally disordered. They suggested that public school BD programs appeared to be eclectic in their approaches to delivery of service, but that university training programs were generally not eclectic in their approaches. Further, they suggested that teacher education programs provide students with the opportunity to explore elements from a number of theoretical models since teachers of the behaviorally disordered are often expected to implement a number of pragmatic approaches reflecting a variety of models.

Grosenick and Huntze (1980) reported concern that teachers graduating from BD training programs are not equipped to deal appropriately with the SBH child. Results of their study indicated that BD training programs (1) were most often not specifically focused, in whole or in part, on the training of individuals to work with severe behavior disorders, but instead emphasized preparation for work with generic BD students; (2) were not geared toward the provision of services through various delivery environments (e.g., public school, mental health agency, institutional setting); (3) emphasized the elementary child rather than the adolescent; and (4) were staffed by one to three faculty members. They also noted that recipients of public school inservice programs on behavior disorders have become disenchanted with the routine methods of inservice delivery. Furthermore, they reported that requirements of preparation programs leading to certification in behavior disorders typically include: (1) coursework in regular education; (2) an introductory course in behavior disorders; (3) methods courses (materials, programming, diagnosis and evaluation, curriculum, and behavior management); (4) psychology (general and child or adolescent); (5) theory of behavior disorders; and (6) student teaching (practicum).

Results of studies which have examined programs for the preparation of SBH teachers strongly suggest there may be a mismatch between such programs and public school practices in educating behaviorally disordered students (Kavale and Hirshoren, 1979). Competencies needed by teachers who work with such students may not necessarily be addressed in teacher preparation. Until such competencies are incorporated within programs for special teachers, the determination of related competencies needed by regular teachers cannot appropriately be made.

Therefore, the major focus of this study was directed toward the determination of specific discrepancies which may exist between needs of teachers of SBH students and the university training received by such teachers.

METHOD

A survey was conducted of 50 teachers of severely behaviorally handicapped classes located in a tri-county area of northwest Ohio. Initial phone contacts were made to eight selected program directors and supervisors of SBH programs to inform them of the purpose of the projected study and obtain administrative support for participation of SBH teachers. After teachers indicated their willingness to participate, an on-site visitation was made by the principal investigators to (1) observe the SBH classroom, (2) interview the teachers, and (3) disseminate and explain the survey in-

strument. Participants were requested to complete the survey instrument and return the completed instrument by mail. A projected goal of 70 percent rate of return was established. Follow-up phone calls and visits were made until this return rate was achieved.

A questionnaire was used for data collection purposes. The first section of the questionnaire was designed to elicit demographic information; specifically, each respondent's teaching position, past experience in special and/or regular education classrooms, undergraduate and graduate degrees held, and certification status.

The second section of the questionnaire was designed to determine respondents' perceptions of (1) the importance of selected competencies required of teachers of SBH students, and (2) the degree of formal university training received with respect to each of these selected competencies. The selected competencies were categorized under four general headings: (1) diagnosis; (2) instruction and materials; (3) socialization techniques and classroom management; and (4) communication skills for teachers. Using a five-point Likert scale, teachers were asked to rate a given competency according to its importance in their current teaching position ("least important" to "most important") and according to the amount of training received in this competency in their preservice university program ("no training" to "superior training").

The third section of the instrument was designed to gather information concerning teacher opinion on separate teacher-training programs for education of SBH as compared to non-categorical special education teacher-training program. A five-point Likert scale was again used for responses ("strongly disagree" to "strongly agree").

RESULTS

A total of fifty teachers in SBH classrooms in northwest Ohio agreed initially to participate in the study. Thirty-five (70%) returned the survey instrument.

Demographic characteristics of the SBH teachers who responded to the survey instrument are presented in Table 1. Eighty-three percent of the SBH teachers (N = 35) taught at the secondary level (grades 7-12). A majority (65%) of these teachers held an undergraduate degree, 32 percent held a masters, and 3 percent held a specialist degree. Teachers majoring in special education with a concentration in LD/BD comprised only 67% of the population but a total of 86 percent of the respondents were certified in the area of LD/BD. Almost all (94%) had attended Ohio colleges or universities. Those having five or more years of classroom experience in education constituted 51 percent; in special education, 37 percent; and with SBH students, 34 percent.

Results of analysis of teacher perceptions as related to the 28 selected competencies are presented in Table 2. Competencies are categorized as (1) those perceived as being least important and receiving least amount of emphasis in training; (2) those perceived as important and adequately addressed in teacher-training programs; (3) those perceived as important and not adequately addressed in teacher preparation. A fourth category -- competencies perceived as least important and yet given adequate emphasis in teacher training -- is not shown in that no respondents placed any of the competencies in this category.

For a competency to be termed "important," 70 percent or more of the responses selected were ranked 4 (important) or 5 (most important) on the Likert scale for that competency. In order for teacher-training to be considered "adequate" on selected competencies, 70 percent or more of the responses were ranked 3 (adequate training), 4 (good training), or 5 (superior training) on the Likert scale for that competency.

TABLE 1

Demographic Characteristics of Teachers of the Severely Behaviorally Handicapped

Grade Taught (N = 35)		Years in SE (N = 35)		Years in SBH (N = 35)		Total Years Education (N = 35)		Degree(s) Held (N = 34)		College Major (N = 33)		Cert. (N = 29)		College Attended (N = 34)	
K-6	17%	0-4	63%	0-4	66%	0-4	47%	B.S.	65%	L/BD	86%	L/BD	86%	Ohio	94%
7-12	83%	5+	37%	5+	34%	5+	51%	M.Ed.	32%			Temp.	3%		
								Ed.S.	3%	Other	33%	Other	10%	Other	6%

SE = Special Education
SBH = Severely Behaviorally Handicapped Classrooms
Cert. = Certification
Temp. = Temporary Certification
B.S. = Bachelor of Science
M.Ed. = Master's in Education
Ed.S. = Specialist in Education
L/BD = Learning Disabilities/Behavior Disorders

Analysis of data from the third section of the survey instrument indicated that 73 percent of the respondents believe SBH training programs should be separated from LD teacher-training programs. Further, 46 percent of the respondents indicated that all special educators should receive training in working with the SBH population even though they are enrolled in a non-categorical program including training in emotionally disabled, learning disabled, and educable mentally retarded areas.

DISCUSSION AND IMPLICATIONS

Those competencies which respondents perceived as being least important and receiving the least amount of training (Table 2, Category One) centered on three distinct areas: (1) administration and interpretation of tests, assessments, scales; (2) skill in implementing peer tutoring; and (3) competency in assisting students with medical problems. The majority of competencies listed in this category were in the area of administration and interpretation of tests. A possible explanation for these responses is that public schools often delegate responsibility for testing to psychologists, counselors and personnel other than the special (SBH) teachers. Hence, SBH teachers may not consider these competencies to be within their realm of responsibility. Thus there may be an appropriate match between needs and training.

However, it should also be noted that all of the competencies found in Category One were perceived as having the least amount of emphasis in teacher-training. Thus inadequate training in these competencies may contribute to teachers' perceptions as to their limited importance.

Among those competencies perceived as important (Table 2, Category Two), six were considered important by 100 percent of the respondents: ability to (1) motivate student achievement, (2) develop and facilitate students' social skills, (3) enhance self-concept, (4) communicate with parents/guardians, (5) individualize instruction to meet varied needs of students, and (6) evaluate student progress according to the individual education plan (IEP). Of these six competencies, three address the affective needs of students, one addresses cognitive needs of students, and two relate to technical responsibilities associated with the teacher's role.

When assessing their training related to these six competencies, respondents indicated that they had had adequate training on three but inadequate training on the ability to (1) develop and facilitate students' social skills, (2) enhance students' self-concepts, and (3) communicate with parents/guardians. Thus it would appear that pre-service SBH teacher training programs may need to expand their coverage of these socially-related skills.

Although the majority of SBH teachers (87%) considered the ability to mainstream students into regular classrooms an important competency, only half the teachers (50%) considered they had been adequately trained to facilitate mainstreaming. Thus it appears it is not only essential to prepare regular educators to deal with mainstreamed SBH students, but is of equal importance to improve the preparation of the SBH teacher in facilitating that process.

Results of this study concur with the findings of Kavale and Hirshoren (1979) in that there is a discrepancy between the needs of teachers of the severely behaviorally handicapped and university training programs. Moreover, the findings reported here support those of Carducci (1980) and Brown and Palmer (1977) who emphasized the need for better preparation of educators to work with SBH students.

In sum, this study lends support to the conclusion that there are major discrepancies between the needs of practicing SBH teachers and the content of teacher preparation

programs. If so, the problem of preparing regular teachers to work effectively with behaviorally disordered students becomes even more complex. Furthermore, until teacher training and public school programs complement one another, optimal experiences for such students will not be provided -- in self-contained SBH classes or in the mainstream.

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TABLE 2

Perceptions of Teachers of the Severely Behaviorally Handicapped Regarding the Importance of, and Received Training in, Selected Competencies

Category One: Competencies perceived as being important and receiving least amount of emphasis in training.

Competency	Perceived Importance		Adequacy of Training	
	%	(N)	%	(N)
Ability to				
administer and interpret diagnostic instruments	55%	(35)	50%	(35)
administer and interpret achievement tests	65%	(35)	55%	(31)
understand the results of individualized psychological tests	59%	(32)	42%	(33)
understand results from perceptual assessments	52%	(31)	39%	(31)
administer and interpret behavior rating scales	58%	(31)	19%	(31)
implement peer tutoring	65%	(31)	42%	(31)
assist students with medical problems	61%	(31)	31%	(29)

TABLE 2

Perceptions of Teachers of the Severely Behaviorally Handicapped Regarding the Importance of, and Received Training in, Selected Competencies

Category Two: Competencies perceived as important and adequately addressed in teacher training programs.

Competency	Perceived Importance		Adequacy of Training	
	%	(N)	%	(N)
Ability to				
construct, administer, and interpret results of teacher-made tests	84%	(31)	87%	(30)
utilize observational techniques in the classrom	94%	(31)	77%	(31)
determine individual learning styles	97%	(31)	84%	(31)
motivate student achievement	100%	(31)	77%	(31)
individualize instruction to meet varied needs of students	100%	(31)	93%	(30)
use small-group instruction	97%	(35)	83%	(35)
construct behavioral performance objectives	90%	(31)	87%	(31)
evaluate student progress according to Individual Education Plan	100%	(31)	83%	(30)
utilize audio-visual materials in teaching	84%	(31)	81%	(31)
utilize audio-visual equipment in teaching	81%	(31)	83%	(30)
maintain order in classroom using behavioral intervention strategies	97%	(31)	71%	(31)

TABLE 2

Perceptions of Teachers of the Severely Behaviorally Handicapped Regarding the Importance of, and Received Training in, Selected Competencies

Category Three: Competencies perceived as important and not adequately addressed in teacher-training programs.

Competency	Perceived Importance		Adequacy of Training	
	%	(N)	%	(N)
Ability to				
locate appropriate teaching materials	97%	(31)	65%	(31)
develop Individual Education Plans	87%	(31)	68%	(31)
provide instruction leading to critical thinking skills	87%	(31)	61%	(31)
develop and facilitate students' social skills	100%	(31)	58%	(31)
enhance students' self-concepts	100%	(35)	60%	(35)
implement peer counseling strategies	84%	(31)	35%	(31)
apply major principles of school law to various areas	73%	(30)	50%	(28)
communicate with colleagues, education specialists, principals, and other school personnel	90%	(31)	58%	(31)
communicate with parents/guardians	100%	(31)	58%	(31)
mainstream students into regular classrooms	87%	(30)	50%	(30)

EFFECTS OF A CURRICULUM DEVELOPMENT PROJECT UPON REGULAR SECONDARY FACULTY

Patricia L. Reed and Robert L. Reed

The purpose of this study was to determine if regular education faculty's knowledge and attitudes concerning handicapped secondary students were affected by participation in a curriculum development project. Results indicated project participants were more knowledgeable of special education content than were non-participating regular faculty. Participants were also more receptive to placement of handicapped students in regular classrooms than were non-participants, special education faculty, or special education students. Negative correlations found between knowledge and attitude suggest that increased knowledge of special education content may be associated with a tendency to regard regular classroom placement of handicapped students as less desirable.

To encourage and support modifications in teacher training deemed necessary to prepare regular teachers to teach handicapped students who are placed in regular classrooms, federal funds in the form of special Dean's Grants have been made available to colleges and universities preparing teachers.

To some observers the Dean's Grants "have become a vital force in the movement toward significant redesign of teacher education" (Whitmore, 1981, p. 7). That change has resulted from the Dean's Grants projects is not disputed. However, projects tend to be viewed as successful primarily on the basis of whether certain processes have occurred. What is lacking in assessment of many projects is attention to systematic measurement of project outcomes specified in federal guidelines:

> The development of faculty knowledge, attitudes and skills pertinent to the education of handicapped children and youth (U.S. Department of Education, 1981, p. 23).

This study was undertaken to determine if activities implemented during the initial year of the Dean's Grant project at Bowling Green State University significantly affected regular faculty's knowledge and attitudes concerning education of handicapped secondary students.

OVERVIEW OF THE PROJECT

The goal of the Dean's Grant project is to effect curricular revisions in the secondary preservice teacher education program so that graduates will be prepared to work effectively with handicapped students. To accomplish this, a faculty development program was implemented to provide opportunities for secondary education faculty to (1) become more knowledgeable concerning implementation of least restrictive educational environments for handicapped students and (2) identify and implement modifications in professional education coursework to assure that competencies

regular teachers need to work with handicapped secondary students are developed in the preservice program.

To promote knowledge acquisition as well as encourage examination of affective considerations associated with teaching the handicapped, participants were involved in a series of structured seminars complemented by independent study and field investigations. Topics which served as organizing elements for project activities included: the substance and intent of P.L. 94-142, the nature of various handicapping conditions, the concept and implementation of IEPs, roles and functions of regular and special educators, accommodation strategies, and support systems essential to the identification, placement and instruction of handicapped students.

Concurrently participants were expected to consider how the knowledge they were gaining applied to the preparation of regular secondary teachers. Participants also maintained records of reactions and questions resulting from study of the professional literature and documented findings from their field studies. Near the close of the first year, the project group formulated a draft of capabilities considered essential for regular teachers to work effectively with handicapped students. They also began to identify modifications to be made in objectives, content, and activities presently included in required professional education coursework.

METHOD

To determine if participants' knowledge and attitudes were affected by a year's participation in the project, measures of knowledge and attitude were obtained early in the second project year. Participant measures were compared to a sample of regular secondary education faculty who had not been involved in project activities. Additionally comparisons were made with a sample of special education faculty and a sample of senior level special education students.

The project population consisted of ten faculty each of whom teaches a required course in the professional sequence. The sample of regular education faculty was drawn from the population of remaining faculty who teach courses required in secondary (7-12) teacher education programs but had not participated in the project. This sample of twenty-one non-participants was selected to represent the same courses taught by project participants (i.e., Introduction to the Profession, Educational Psychology, Methods, Assessment and Evaluation, Philosophy of Education, and Organization and Administration).

To provide a basis for comparison of regular and special educators' knowledge and attitudes, six faculty in the Department of Special Education were also administered the instruments. Because of the small size of this group, a sample consisting of forty-two senior level teacher education majors in EMR and LD/BD fields also completed these instruments.

Knowledge and attitude were operationally defined as responses on two instruments, the *Reed Situational Inventory* and *Secondary School Mainstreaming Survey*. These instruments were administered to project participants during a regularly scheduled seminar. Regular and special education faculty completed the instruments in the Project office individually over a period of one week following administration to project participants. Students completed the instruments during a regularly scheduled class period that same week.

Instruments were developed to measure the two general areas of change expected as result of participation in the Dean's Grant Project. These included (1) increased

knowledge of P.L. 94-142 and its present interpretation and implementation in the schools and (2) increased acceptance for placing handicapped students in regular classroom settings.

The *Secondary School Mainstreaming Survey* (SSMS) was designed as a measure of knowledge about handicapped students. Multiple-choice items developed for the SSMS relate to three general areas: characteristics of handicapped students; concepts related to P.L. 94-142 and its implementation; and methods of instruction as they have been adapted for handicapped students.

The original instrument consisting of fifty items was submitted for review by persons with expertise in special education. Suggestions given by these experts were used in revising items on the test. The revised instrument was then administered to senior undergraduate special education majors. Responses from these students were used to compute item analysis statistics on the test. Indices of Difficulty and Discrimination were calculated for each item. Items with low discrimination and items with high or low difficulty were removed from the instrument. The final form of the SSMS contains forty items: sixteen related to characteristics of handicapped students; fifteen related to methods of instruction; and nine related to knowledge of P.L. 94-142 and current mainstreaming practices. The reliability for the SSMS was estimated to be 0.54 (KR #20) using the responses of the seventy-nine subjects in this study.

The *Reed Situational Inventory* (RSI) was designed as a measure of attitude toward placing handicapped students in the regular classroom. The RSI consists of twenty-five descriptions of junior/senior high students who might be referred for special education services because of handicapping conditions. The handicapping conditions include: Hearing and Visually Impaired; Orthopedically Impaired; Learning and Behavioral Disorders; Mentally Retarded; and Emotionally Handicapped. Respondents are asked to classify each of the students as to how they believe the handicapped student could best be handled in the normal school system. These include:

1. Regular Classroom - You feel the student should be placed in regular classrooms for all subjects.
2. Consultant - You feel the student should be placed in regular classrooms for all subjects with special consultants available for teachers.
3. Part-time Regular Classroom - You feel the student should be placed in regular classrooms for most subjects and in special classrooms for a few subjects.
4. Part-time Special Classroom - You feel the student should be placed in special classrooms for most subjects and in regular classrooms for a few subjects.
5. Special Classroom - You feel the student should be placed in a special classroom for all subjects.

The RSI is similar to the *Rucker-Gable Educational Programming Scale* (Rucker and Gable, 1974) and the *Classroom Integration Inventory* (Paul, Turnball, and Cruickshank, 1977) with some major differences. The *Rucker-Gable* includes descriptions of elementary school children who are either mentally retarded, emotionally disturbed, or learning disabled. The RSI includes descriptions of junior and senior high age students with a broader range of handicapping conditions including visual and hearing impaired and orthopedically handicapped. In addition, the RSI is not intended to measure knowledge of appropriate placement of handicapped students. Scores on the RSI are intended only as a measure of the respondent's tendency to place handicapped students toward the regular classroom end of a continuum or toward the special classroom.

Scores on the RSI are calculated directly from the respondent's placement choice employing a five-point scale ranging from Regular Classroom (1) to Special Classroom (5). A total score is obtained by summing the weighted responses to the twenty-five items. Consequently, low scores on the RSI indicate a tendency to place handicapped students in the regular classroom and high scores indicate a tendency to place in the special classroom. The reliability for the RSI was estimated to be 0.80 (Coefficient Alpha) using a sample of graduate students in a variety of master degree programs in education.

RESULTS

Two changes were expected in faculty as a result of participation in the Dean's Grant Project. These were an increased knowledge about the education of handicapped secondary students and an increased tendency to place junior and senior high school age handicapped students in regular classrooms. To investigate the possible effects of the project, faculty who were involved in the project (Participants) were compared to similar faculty who were not involved in the project (Non-Participants) on a measure of knowledge (SSMS) and a measure of attitude (RSI) concerning the education of handicapped secondary students. In addition, comparisons were made with special education majors and special education faculty on these two instruments.

The means and standard deviations for these four groups on the achievement measure (SSMS) are presented in Table 1. As might be expected, the special education faculty obtained the highest mean score of 30.33 and the special education majors obtained the lowest mean score of 21.83. Analysis of Variance (Table 2) testing the difference among the four group means resulted in an F-ratio of 10.67 which was significant at the .01 level.

TABLE 1

Means and Standard Deviation on the Secondary School Mainstreaming Survey

Group	N	Mean	Standard Deviation
Participants	10	25.40	3.90
Non-Participants	21	22.90	3.34
Special Education			
Students	42	21.83	3.76
Faculty	6	30.33	2.49

TABLE 2

Summary of Analysis of Variance for the Secondary School Mainstreaming Survey

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F-ratio	
Between	3	433.97	144.66	10.67	p .01
Within	75	1017.37	13.56		
Total	78	1451.34			

Multiple t-tests (Bartz, 1980) were used to test for significant differences between pairs of group means on the SSMS. The results of these comparisons are presented in Table 3. Significant differences were found between the Participants' mean SSMS score of 25.40 and the Non-Participants' mean score of 22.90 (.10 level); the Special Education Student mean score of 21.83 (.01 level); and the Special Education Faculty mean score of 30.33 (.05 level). Participants scored significantly higher on the SSMS than did Non-Participants and Special Education Students but significantly lower than Special Education Students. In addition, the Special Education Faculty scored significantly higher on the SSMS than did Non-Participants and Special Education Students. The mean SSMS scores for Non-Participants and Special Education Students were not found to be significantly different.

TABLE 3

Multiple T-Test Between Pairs of Means on the SSMS

Group Comparisons	Mean	Multiple T-Test	
Participants versus	25.40		
Non-Participants	22.90	1.77	p .10
Special Ed Students	21.83	2.75	p .01
Special Ed Faculty	30.33	2.59	
Non-Participants versus	22.90		
Special Ed Students	21.83	1.09	ns
Special Ed Faculty	30.33	4.37	p .01
Special Ed Students versus	21.83		
Special Ed Faculty	30.33	5.28	p .01

The mean and standard deviations for the four groups on the attitude measure (RSI) are presented in Table 4. The Special Education Faculty obtained the highest mean score of 76.00 and the Participants obtained the lowest mean score of 58.00. Analysis of Variance (Table 5) testing the difference among the four group means resulted in an F-ratio of 6.14 which was significant at the .01 level.

TABLE 4

Means and Standard Deviations on the Reed Situation Survey

Group	N	Mean	Standard Deviation
Participants	10	58.00	10.78
Non-Participants	21	64.76	8.97
Special Education			
Students	42	70.76	10.59
Faculty	6	76.00	6.76

TABLE 5

Summary of Analysis of Variance for the Reed Situation Survey

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F-ratio	
Between	3	1924.37	641.46	6.14	p .01
Within	75	7839.43	104.53		
Total	78	9863.80			

A comparison of pairs of group means using the Multiple t-test is presented in Table 6. Significant differences were found between the Participants' mean RSI score of 58.00 and the Non-Participants' mean of 65.76 (.01 level); the Special Education Faculty mean score of 76.00 (.01 level); and the Special Education Student mean score of 70.76 (.01 level). Participants scored significantly lower on the RSI than did the other three groups indicating more of a tendency to place handicapped students in regular classrooms. In addition, the Non-Participants scored significantly lower than did both Special Education Faculty and Students. The RSI mean scores for Special Education Faculty and Special Education Students were not found to be significantly different.

TABLE 6

Multiple T-Tests Between Pairs of Means on the RSI

Group Comparisons	Mean	Multiple T-Test	
Participants versus	58.00		
Non-Participants	64.76	1.72	p .10
Special Ed Students	70.76	3.54	p .01
Special Ed Faculty	76.00	3.41	p .01
Non-Participants versus	64.76		
Special Ed Students	70.76	2.38	p .05
Special Ed Faculty	76.00	2.20	p .05
Special Ed Students versus	70.76		
Special Ed Faculty	76.00	1.17	ns

Pearson Product-Moment Correlation Coefficients indicating the degree of relationship between scores on the SSMS and the RSI are presented in Table 7. Negative correlations were found between these two measures but only the correlation when all groups are combined approached significance (.10). A negative relationship indicates that those scoring high on the knowledge measure tend to place handicapped students

in special classes while those scoring low on the knowledge measure tend to place handicapped students in regular classes.

TABLE 7

Correlation Between SSMS Scores and RSI Scores

Groups	N		
Participants	10	-0.41	ns
Non-Participants	21	-0.24	ns
Special Education Faculty	6	-0.40	ns
Special Education Faculty	6	-0.40	ns
Special Education Students	42	-0.18	ns
Total	79	-0.19	p .10

SUMMARY AND IMPLICATIONS

Data presented in this study suggest that participation in the Dean's Grant project did result in change in knowledge and attitude concerning education of handicapped students.

Participants obtained a significantly higher mean score (.01 level) on the knowledge measure (SSMS) than did regular secondary education faculty not involved in the project. From this it can be inferred that participants had become more knowledgeable than their regular education colleagues with respect to characteristics of handicapped students, concepts related to P.L. 94-142 and its implementation, and methods of instruction as they have been adapted for the handicapped.

Additionally, participants' mean score on the knowledge measure was significantly lower (.05 level) than that of special education faculty. The mean score of non-participants was also significantly lower than the mean score of special education faculty (.01 level). Such differences would seem to verify that there is an agreed upon body of content relative to educating the handicapped that is more common to special educators than to regular educators.

On the attitude measure (RSI) the participants' mean score was significantly lower than that of non-participating regular faculty (.10 level), special education faculty (.01 level), and special education students (.01 level). The non-participants' mean score was also significantly lower than that of special education faculty (.05 level) and students (.05 level). This suggests that participants are more receptive to mainstreaming of handicapped secondary students than are other regular education faculty but that regular faculty, in general, are more receptive to placing handicapped students in regular classrooms than are either special education faculty or students.

When scores on the two measures for all groups were compared, a negative correlation (.10 level) was found. This raises the question of whether increased knowledge of special education content is associated with less receptivity to placing handicapped students in regular classrooms.

While this study provided findings which suggest that the Dean's Grant project has

been successful in expanding faculty knowledge and promoting positive attitudes toward mainstreaming, care must be exercised in interpreting these findings.

Although differences between participating and non-participating faculty on the knowledge measure were found to exist, further comparisons of these two groups over time are necessary to determine if participating faculty continue to demonstrate greater knowledge than their regular education colleagues. Additional study also needs to be undertaken to determine if the content dimensions represented by the SSMS are valid indicators of knowledge most relevant to the adequate preparation of secondary teachers.

It should be noted also that scores on the RSI were accepted as measures of receptivity toward placing handicapped secondary students in regular classrooms. While attitude-behavior studies have shown positive correlations between measured attitude and overt behavior (Schuman, 1976), further attention to the relationships between this paper-pencil measure of receptivity and actual acceptance of handicapped students in the regular classroom is required.

Results that suggest higher receptivity to mainstreaming by regular education faculty than by special education faculty and students also need more considered examination. Experience with handicapped students has been shown to lead to more realistic and/or negative attitudes toward mainstreaming on the part of teachers (Phelps, 1974; Proctor, 1967; Wandt, 1952). Differences between regular and special educators and students might be explained on that basis. However, this explanation would not account for differences between participants and non-participants since project activities included direct experience with handicapped students in mainstreamed settings. Given the presence of a negative correlation between the knowledge-attitudinal measures, a third explanation also merits condideration—the greater one's knowledge of special education content, the greater the tendency to regard the handicapped student as needing special education services. Should this be the case, projects which succeed in increasing regular educators' knowledge of special education content may concurrently result in regular educators regarding regular classroom placement as less desirable for promoting the educational progress of handicapped students.

Thus a new and provocative question arises, is content as typically transmitted to special educators and now being passed on to regualr educators such that it reinforces tendencies to separate rather than integrate the handicapped?

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